Bison occidentalis

Bison occidentalis is an extinct species of bison that lived in North America, and potentially in Siberia[2] and the Japanese archipelago[3] from about 11,000 to 5,000 years ago, spanning the end of the Pleistocene to the mid-Holocene.[4]

Bison occidentalis	
Temporal range: Pleistocene-Holocene	
Scientific classification	
Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	Artiodactyla
Family:	Bovidae
Subfamily:	Bovinae
Genus:	*Bison*
Species:	†***B. occidentalis***
Binomial name	
†***Bison occidentalis*** Lucas, 1898 [1]	

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Characteristics

B. occidentalis skull at Cleveland Museum of Natural History

Likely evolving from *Bison antiquus*, *B. occidentalis* was smaller overall from its most direct ancestor, but was similar to the distant ancestor the steppe bison (*Bison priscus*) in size. *B. occidentalis* had a highly variable morphology, and their horns, which pointed rearward, were much thinner and pointed than other Pleistocene species of bison.[4]

B. occidentalis, like other bison species, may have existed in small, scattered populations and been unable to increase in numbers until after the Pleistocene epoch ended 10,000 years ago because of competition with other large grazers during the Pleistocene.[5]

Evolution

B. occidentalis's size depletion from *Bison antiquus* was likely caused by the influence of human pressures and may be related to the cease of the Folsom culture.[6] The smaller size likely helped *B. occidentalis* to flourish in number and shaping of modern American bisons after migrating into North America, as *Bison antiquus* faced population depletion by human hunting and was replaced by *B. occidentalis* in ecological niches and hybridization of the two bison species resulted in the appearance of today's smaller *Bison bison*.[6] The wood bison (*Bison bison athabascae*) preserved some of original traits of *B. occidentalis* which was more similar to the phenotype of the steppe bison, hence being more primitive than the plains bison (*Bison bison bison*).[2]

More recently ancient DNA studies have proven interbreeding between *B. occidentalis* and ancestral modern bison, so *B. occidentalis* was proposed to have been a localized offshoot of *B. antiquus* and part of the transition from that chronospecies to modern bison.

See also

- Great bison belt
- Steppe bison
- *Bison antiquus*
- American bison

References

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